

COMBINING DIRECT INTERFERENCE ESTIMATION AND DECODER METRICS FOR IMPROVED MEASUREMENT FOR AMR MODE ADAPTATION IN GSM SYSTEMS

Abstract of Disclosure

A method of combining a channel quality estimate for the radio channel based on direct measurement of carrier and interferer energies, and a channel quality estimate for the radio channel based on channel decoder metrics, to obtain a final channel quality estimate in terms of carrier-to-interference (C/I) ratio for the radio channel, which is more reliable, consistent and accurate than that obtained with the individual methods. After computing a direct channel quality estimate and a decoder metric-based channel quality estimate for the radio channel, confidence levels, $P(\text{direct})$, $P(\text{metric})$, are assigned to the two estimates. $P(\text{direct})$ is multiplied with the direct channel quality estimate and $P(\text{metric})$ is multiplied with the decoder metric channel quality estimate. The respective products are added to obtain the final channel quality estimate in terms of the carrier-to-interference (C/I) ratio for the radio channel.

Figures